

03050106-080
(Jackson Creek/Mill Creek)

General Description

Watershed 03050106-080 is located in Fairfield County and consists primarily of **Jackson Creek and Mill Creek** and their tributaries. The watershed occupies 37,525 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Madison-Cecil-Wilkes series. The erodibility of the soil (K) averages 0.26, and the slope of the terrain averages 12%, with a range of 2-40%. Land use/land cover in the watershed includes: 77.8% forested land, 9.9% agricultural land, 9.5% urban land, 2.1% scrub/shrub land, 0.9% water, and 0.2% barren land.

Jackson Creek is created by the confluence of Winnsboro Branch and Moore Creek near the Town of Winnsboro. Jackson Creek accepts drainage from Jordan Branch, Kennedy Creek, Sand Creek, Stitt Branch, and Gladney Branch before flowing into the Little River. Mill Creek drains into the Little River downstream of Jackson Creek. There are several ponds and lakes (totaling 378.1 acres) in this watershed and a total of 54.8 stream miles, all classified FW.

Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
B-123	S	FW	WINNSBORO BRANCH AT US 321, ABOVE WINNSBORO MILLS OUTFALL
B-077	S	FW	WINNSBORO BRANCH BELOW PLANT OUTFALL
B-102	W/BIO	FW	JACKSON CREEK AT S-20-54, 5 MI W OF WINNSBORO
B-338	W	FW	MILL CREEK AT S-20-48, 10 MI SW OF WINNSBORO

Jackson Creek (B-102) - Aquatic life uses are partially supported based on macroinvertebrate community data. A very high concentration of chromium was measured in 1995. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Winnsboro Branch - There are two monitoring sites along Winnsboro Branch. At the upstream site (**B-123**), aquatic life uses are fully supported. A significant increasing trend in dissolved oxygen concentration and a significant decreasing trend in five-day biochemical oxygen demand suggest improving conditions for these parameters. At the downstream site (**B-077**), aquatic life uses are not supported due to occurrences of copper and zinc in excess of the aquatic life acute standards, including a high concentration of zinc measured in 1997. A very high concentration of chromium was measured in 1995. There is a significant increasing trend in total phosphorus concentration. P,P'DDD (a metabolite of DDT) was detected in the 1996 sediment sample and a very high concentration of nickel was measured in the 1998 sample. Recreational uses are not supported at either site due to fecal coliform bacteria excursions.

Mill Creek (B-338) - Aquatic life uses are fully supported. Recreational uses are not supported due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

<i>RECEIVING STREAM FACILITY NAME PERMITTED FLOW @ PIPE (MGD) COMMENT</i>	<i>NPDES# TYPE LIMITATION</i>
JACKSON CREEK TOWN OF WINNSBORO/JACKSON CREEK PLANT PIPE #: 001 FLOW: 1.6 WQL FOR BOD5,DO,TRC,NH3N	SC0020125 MAJOR DOMESTIC WATER QUALITY
JACKSON CREEK TRIBUTARY UNIROYAL GOODRICH TIRE MFG. PIPE #: 001 FLOW: M/R	SCG250148 MINOR INDUSTRIAL EFFLUENT
JORDAN BRANCH ROYAL HILL SD/MIDLANDS UTILITY PIPE #:001 FLOW: M/R	SC0031046 MINOR DOMESTIC EFFLUENT

Nonpoint Source Management Program

Land Disposal Activities

Landfill Activities

<i>SOLID WASTE LANDFILL NAME FACILITY TYPE</i>	<i>PERMIT # STATUS</i>
CHAMBERS FAIRFIELD COUNTY SW TRANSFER STA. DOMESTIC	202400-6001 -----
FAIRFIELD COUNTY LANDFILL DOMESTIC	DWP-090; DWP-024 CLOSED

Water Supply

<i>WATER USER STREAM</i>	<i>TOTAL PUMP. CAPACITY (MGD) RATED PUMP. CAPACITY (MGD)</i>
TOWN OF WINNSBORO	0.7
SAND CREEK	0.5
TOWN OF WINNSBORO	8.0
MILL CREEK - 192 ACRE LAKE	3.1

Growth Potential

There is a low potential for growth in this watershed except for in and around the City of Winnsboro, where water and sewer services exist. The recent closings of the Mack Truck and the Fuji Copian Winnsboro plants will further lower the potential for growth in the watershed.